ABSTRACT

A plurality of individual fuel cells are connected in series with each other to construct the fuel cell. The fuel cell is

5 diagnosed on the basis of an average output voltage Va of the individual cells, their standard deviation σ, individual output voltages, their variances σ^2 of vibration components and their voltage drop speed of their non-vibration components. For example, if Va is within a normal range

10 and moreover at least one of the individual output voltages is not within a normal range, it is diagnosed that water blocks the fuel electrode. If Va is not within a normal range and moreover σ is within a normal range, it is diagnosed that the electrolyte film is dried. Further, if

15 Va is not within a normal range and moreover σ is not within a normal range, it is diagnosed that the fuel (hydrogen) supply is insufficient.

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